

Sl NO	Description	Nos	BAR DIA	No. Bars	Total No. bars	L	Crank length (42d)	Actual Length	Total Length	Weight	Total Weight
			mm			m	m	m	m	kg/m	Kg's
Project name	MAINTENANCE AND REPAIR WORKS AT PRIMARY HEALTH CENTER AT AGRAHARA LAYOUT IN WARD NO. 05 BYATARAYANAPURA SUB DIVISION										
Client	Sri. Gnanendra Murthy M D #410, Balaji Nilaya, 5th Main Road, 4th Cross, Near Priya Darshini School, Kengeri Satellite Town, Bangalore- 60										
Description	Steel calculation sheet										
Measurements	MEASUREMENT SHEET - 1ST & Part Bill										
	Description	Nos	BAR DIA	No. Bars	Total No. bars	L	Crank length (42d)	Actual Length	Total Length	Weight	Total weight
			mm			m	m	m	m	kg/m	Kg's
Chainage from To	Providing Thermo-Mechanically Treated bars of grade Fe-500D or more Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position, binding and anchoring to adjacent members wherever necessary complete as per Design including cost										
E3											
	Footing	2									
	C1										
	Main Bars		16	10	20	1.2	0.00	1.20	24.00	1.578336	37.88
	Distribution		16	10	20	1.2	0.00	1.20	24.00	1.578336	37.88
										sub total	75.76
	Columns	2									
	C1										
	Main Bars		20	4	8	3.40	0.00	3.40	27.20	2.46615	67.08
			16	2	4	3.40	0.00	3.40	13.60	1.578336	21.47
	Stirrups @200mm c/c		10	18	36	1.6	0	1.6	57.6	0.616538	35.51
										Sub-total	124.06

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 25/12/22

Handwritten signature and date:
 25/12/2022
 Asst. Executive Engineer
 Project Division
 Yelahanka Zone
 BBMP, Bangalore - 92

BBMP

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF THE PROJECT: MAINTENANCE AND REPAIR WORKS AT PRIMARY HEALTH CENTER AT AGRAHARA LAYOUT IN
WARD NO. 05

MEASUREMENT SHEET

First & Part Bill

Client	Sri. Gnanendra Murthy M D #410, Balaji Nilaya, 5th Main Road, 4th Cross, Near Priya Darshini School, Kengeri Satellite Town, Bangalore- 60									
Chainage in m	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate Rs	Amount Rs	Remarks
From	To	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete and as per the directions of the Engineer-in-charge								
Item No. 01		cum								
Vide Total executed Quantity from premeasuremet Page no.1							160.82			
Total Executed Quantity							160.82			
Tender Quantity							90.45			
Quantity Upto 125%							113.06	508.78	57523.94	
Quantity Above 125%							47.76	508.78	24300.19	
Item No. 02		cum								
Vide Total executed Quantity from premeasuremet Page no.1							26.77			
Total Executed Quantity							26.77			
Tender Quantity							15.08			
Quantity Upto 125%							18.85	2752.39	51882.55	
Quantity Above 125%							7.92	2752.39	21794.09	
Item No. 03		cum								
Vide Total executed Quantity from premeasuremet Page no.3							26.77			
Total Executed Quantity							26.77			
Tender Quantity							15.08			
Quantity Upto 125%							18.85	5781.26	108976.75	
Quantity Above 125%							7.92	5781.26	45777.46	

Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift. complete and as per the directions of the Engineer-in-charge

Providing and laying in position plain cement concrete of mix 1:4:8 (M7.5) with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete and as per the directions of the Engineer-in-charge

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

ASSISTANT ENGINEER

Asst. Executive Engineer (Project)

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF THE PROJECT: MAINTENANCE AND REPAIR WORKS AT PRIMARY HEALTH CENTER AT AGRAHARA LAYOUT IN WARD NO. 05

MEASUREMENT SHEET

First & Part Bill

Client: Sri. Gnanendra Murthy M D #410, Balaji Nilaya, 5th Main Raod, 4th Cross, Near Priya Darshini School, Kengeri Satellite Town, Bangalore- 60

Chainage in m	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount	Remarks
								Rs	Rs	
From	To	Providing and laying in position plain cement concrete of mix M15 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete and as per the directions of the Engineer-in-charge								
Item No. 04	Measurements taken on									
	Above SSM									
	Compound wall									
	South Side	Cum	1.0	50.65	0.45	0.15	3.42			
	East Side	Cum	1.0	54.80	0.45	0.15	3.70			
		Cum	1.0	47.70	0.45	0.15	3.22			
	North Side	Cum	1.0	80.35	0.45	0.15	5.42			
	For Tiles									
	Sitting Area	Cum	1	4.5	3.6	0.15	2.43			
	Passage	Cum	1	11.3	3	0.15	5.09			
		Cum	1	5.2	0.7	0.15	0.55			
		Cum	0.5	5.2	2.3	0.15	0.90			
	Total Executed Quantity						24.72			
	Tender Quantity						26.50			
	Now To be Paid Qty						24.72	6143.86	151871.61	
Item No. 05	Providing and laying/fixing cement base, precast, pre polished cement concrete, designer tiles 25mm thick for flooring conforming to IS 1237 heavy duty tiles for flooring, treads of steps and landing, laid on a bed of 12mm thick cement mortar 1:3 mis finished with flush pointing using white cement, including cost of materials, mortar including cutting, griding the edge to half/full round wherever required, labour, curing complete and as per the directions of the Engineer-in-charge									
	Measurements taken on									
	Infront of Building									
	Sitting Area	sqm	1	4.5	3.6		16.20			
	Passage	sqm	1	11.3	3		33.90			
		sqm	1	5.2	0.7		3.64			
		sqm	0.5	5.2						
	Total Executed Quantity						59.72			
	Tender Quantity						129.94			
	Now To be Paid Qty						59.72	1396.02	83370.31	

ASSISTANT ENGINEER

A.E.E. (Project)

BRUHAT BANGALORE MAHANAGARA PALIKE										
NAME OF THE PROJECT: MAINTENANCE AND REPAIR WORKS AT PRIMARY HEALTH CENTER AT AGRAHARA LAYOUT IN WARD NO. 05										
MEASUREMENT SHEET										
First & Part Bill										
Client: Sri. Gnanendra Murthy M D #410, Balaji Nilaya, 5th Main Raod, 4th Cross, Near Priya Darshini School, Kengeri Satellite Town, Bangalore- 60										
Change in m	Description of Item	Unit	No	Length	Breadth	Depth	Quantity	Rate	Amount	Remarks
				(m)	(m)	(m)		Rs	Rs	
From To	Providing and constructing granite / trap / basalt size stone masonry in foundation cement mortar 1:6, stone hammerddressed in courses not less than 20 cms high, bond stones at 2m apart in each course including cost of materials, labour, curing complete and as per the directions of the Engineer-in-charge									
Item No. 06		Cum								
	Vide Total executed Quantity from premeasuremet Page no.						80.69			
	Total Executed Quantity						80.69			
	Tender Quantity						48.24			
	Quantity Upto 125%						60.30	5207.89	314035.77	
	Quantity Above 125%						20.39	5207.89	106186.34	
Item No. 07	Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete and as per the directions of the Engineer-in-charge									
		cum								
	Vide Total executed Quantity from premeasuremet Page no.2						25.16			
	Tender Quantity						12.06			
	Now To be Paid Qty						15.08	227.76	3433.48	
	Quantity Upto 125%						10.08	227.76	2296.59	2283
	Quantity Above 125%									
Item No. 08	Conveying the excavated earth, debris etc., with all lead and lifts including loading and unloading charges etc., complete and as per the directions of the Engineer-in-charge									
		Sqm								
	Vide Total executed Quantity from premeasuremet Page no.						135.67			
	Tender Quantity						78.39			
	Now To be Paid Qty						97.99	70.39	6897.34	
	Quantity Upto 125%						37.68	70.39	2652.20	
	Quantity Above 125%									
EI	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necessary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates									
		Cum								
	Vide Total executed Quantity from premeasuremet Page no.3						1.44			
	Now To be Paid Qty						1.44	7797.79	11228.82	

CONTRACTOR

ASSISTANT ENGINEER

ASSISTANT EXECUTIVE ENGINEER

BRUHAT BANGALORE MAHANAGARA PALIKE										
NAME OF THE PROJECT: MAINTENANCE AND REPAIR WORKS AT PRIMARY HEALTH CENTER AT AGRAHARA LAYOUT IN WARD NO. 05										
MEASUREMENT SHEET										
First & Part Bill										
Client	Sri. Gnanendra Murthy M D #410, Balaji Nilaya, 5th Main Raod, 4th Cross, Near Priya Darshini School, Kengeri Satellite Town, Bangalore- 60									
Chainage in m	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate Rs	Amount Rs	Remarks
From	To	Providing and laying in position Reinforced cement concrete for all Super structures of building , Road works, Water works, Irrigation works & super structure works of bridges upto 3.50 m height. The granite/ trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers laid in layers, well compacted using needle vibrators. The cost includes all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement, dowel bars & formwork to be paid separately) M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates								
E2										
Measurements taken on										
	Columns	Cum	2	0.4	0.4	1.60	0.51			
	Total Executed Quantity						0.51			
	Now To be Paid Qty						0.51	8215.14	4206.15	
E3	Providing Thermo-Mechanically Treated bars of grade Fe-500D or more Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position, binding and anchoring to adjacent members wherever necessary complete as per Design including cost of material, labour, usage charges complete as per specifications. (The laps and wastages shall not be measured separately)									
		Kg								
	Vide Total executed Quantity from premeasuremet Page no.3						199.82			
	Now To be Paid Qty						199.82	122.34	24445.00	
E4	Fabricating, providing and erecting in position of MS Hot Dip Galvanised Sq. Hallow Poles of 132 X 132 Heavy gauge of length 3000mm with MS. Hot dip Galvanised grill work as per approved design and drawing of chief architect. Using 12 X 75mm galvanised flat for alround frame and 20 X 20mm galvanised forged design with square for vertical at 150mm c/c as shown in the drawing including providing forged ornamental arrowhead at top and bottom. The work is inclusive of throughing flat, square rods, placing welding all the joints, including grinding, finishing 2 coats of anticorrosive paint over one coat of metal primer. The rate is inclusive of all materials like MS. Hollow galvanized pipe, flats, forged square rods, cost of labour for all items of work cost painting, welding, cutting, grinding with all lead and lift as per specification including loading and unloading with cost and conveyance of all materials, labour, machinery and incidental charges for the successful completion of the work as per the direction of the Engineer-in-charge of the work. (Data Rate)									
Measurements taken on										
	Compound wall									
	South Side	Sqm	1	50.9		0.40	20.36			
							20.36			
	Now To be Paid Qty						20.36	9593.88	195331.49	
	TOTAL AMOUNT								1216210.10	

12,16,180 = 0

Asst. Executive Engineer
Project Division
Assistant Executive Engineer
Yelahanka Zone
RBMP, Bangalore - 92